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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,455

07/11/2005

Rolf Pfeifer

3926.122

7854

30448

7590

10/02/2007

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EXAMINER

LE, HOA T

ART UNIT

PAPER NUMBER

1773

MAIL DATE

DELIVERY MODE

10/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<div style="border: 1px solid black; width: 150px; height: 20px; margin-bottom: 5px;"></div> Office Action Summary	Application No. 10/518,455	Applicant(s) PFEIFER ET AL.	
	Examiner H. T. Le	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>Aug 2005</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: References to claims. Reference to claims in a specification is not acceptable because the substances of the claims usually change significantly during prosecution by amendment or cancellation. Currently, paragraph [00010] of the specification mentions claim 1 which is no longer present. Paragraph [00021] should be amended to remove claim 14 from the paragraph. Appropriate correction is required.
2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

3. Claims 10-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims include numeral references to the drawings and thus render the claims indefinite because the drawings may not represent the same materials or structure as what described in the claims. For example, surface layer (2) is recited in both claim 1 and claim 15. However, claim 1 describes the surface layer (2) as comprising polyvinyl butyral while claim 15 does not recite vinyl butyral in the surface layer (2).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 10-18 are rejected under 35 U.S.C. 102(a) as being anticipated by McCrary (US 7,270,879).

McCrary teaches a granulated material having a surface layer of polyvinylbutyral ("PVB"). See claims 1 and 15. With regard to the feature "for 3D binder printing", because this is an intended use in the preamble of the claims, such intended use does not amount to a patentable weight.

6. Claims 10-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Kondo (US 6,329,061).

Claims 10-14: Kondo teaches particles dispersed in an interlayer comprising polyvinyl butyral. See Kondo, col. 2, lines 16-19 and col. 3, lines 57-60.

Claims 15-18: Kondo also teaches a method of coating on a substrate comprising applying a surface layer of polyvinyl butyral to particles, placing a layer comprising the particles onto the substrate.

7. Claims 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bredt (US 5,902,441).

Art Unit: 1773

Bredt teaches a 3d binder printing process comprising placing a layer of particulate material on a substrate and wetting the layer with a binder liquid. See Bredt, claims

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10-14, 16 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Bredt (US 5,902,441).

Bredt teaches a method of binder printing comprising coating a substrate with a layer of particulate materials. However, Bredt does not specifically describe PVB as the materials for the particulate coating. However, PVB is known as materials for binding substrates. See Brochure Butvar provided by Applicant. Therefore, one having ordinary skill in the art would have found it obvious to replace the particulate coating of Bredt with PVB or to coat the particulate materials in the coating taught by Bredt with PVB in order to further enhance the bonding of the coating to the substrate. Note that claims 10, 13, 14 and 16 do not require that the granulated materials are coated particles.

10. Other references are cited as art of interest.

Art Unit: 1773

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511.

The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. Thi Le/
H. (Holly) T. Le
Primary Examiner
Art Unit 1773

September 24, 2007

